



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,115	03/31/2004	Darin G. Schaeffer	8627/331	6599
757 7590 12/20/2007 BRINKS HOFER GILSON & LIONE P.O. BOX 10395 CHICAGO, IL 60610			EXAMINER RYCKMAN, MELISSA K	
			ART UNIT 3773	PAPER NUMBER
			MAIL DATE 12/20/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/815,115	<b>Applicant(s)</b> SCHAEFFER ET AL.	
	<b>Examiner</b> Melissa Ryckman	<b>Art Unit</b> 3773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on received on 7/2/07.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 48-76 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 48-76 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

This office action is in response to claims filed 7/2/07.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 48-54,57,60,62-68,71 and 74 are rejected under 35 U.S.C. 102(b) as being anticipated by Kocur (U.S. Patent No. 6,350,277).

Claims 48 and 50:

Kocur teaches an expandable stent comprising: a plurality of substantially cylindrical ring structures (120, Fig. 1), wherein each ring structure extends around a circumference of the stent (120 extends around a portion of the circumference of the stent) and comprises at least one unit structure (Fig. 1); and at least one connector member joining two of said ring structures (115) when said stent is in an unexpanded state, said connector member being curved and extending across a space separating adjacent ring structures (Fig. 1), said connector member comprising a first end joined to one ring structure (120) and a second end joined to an adjacent ring structure (115 connects two of 120), wherein said at least one connector member is biodegradable along an entire length thereof between said first end and said second end (col. 2, ll. 4-8) and is adapted to biodegrade when said stent is in an expanded state (capable of

degrading when expanded) so that said two ring structures become substantially disjoined (this is inherent).

Claims 49,62-64:

Kocur teaches at least one connector member (115) is substantially U or V shaped (looking at the connector from the side view the connector is substantially U or V shaped, as has portions curved and small portions straight).

Claims 51,65:

Kocur teaches the at least one connector member (115) is make of one or more polymers (col. 7, ll. 1-16).

Claims 52,66:

Kocur teaches at least one connector member (115) is adapted to biodegrade within thirty days to one-hundred eighty days after said stent is expanded (col. 7, ll. 56).

Claims 53,67:

Kocur teaches at least one connector member (115) comprises a multitude of layers each having varying degradation rates (col. 7, ll. 18,57-60, varying thickness is inherently varying degradation rate).

Claims 54,68:

Kocur teaches at least one connector member (115) comprises one layer having a substantially uniform degradation rate (col. 7, ll. 55-57).

Claims 57,71:

Kocur teaches said at least one connector member (115) is flexible prior to the stent being expanded (inherent as the connector member is made of a polymer, col. 7, ll. 1-14).

Claims 60 and 74:

Kocur teaches said stent is in an unexpanded state there are two or more connector members (115) joining said two ring structures (120) and adjacent connector members (115) are circumferentially aligned (Fig. 1).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 55,56,69,70- are rejected under 35 U.S.C. 103(a) as being unpatentable over Kocur (U.S. Patent No. 6,350,277), as applied to claim 48 above.

Kocur teaches said ring structures (120) comprise a non-biodegradable base material (nitinol, col. 6, ll. 36). Kocur is silent regarding a biodegradable coating on the stent, however Kocur discusses many therapeutic agents that are well known in the art that are biodegradable coating layers (col. 8, ll. 22-42, col. 7, ll. 18,19). It would have been obvious to one of ordinary skill in the art to have a biodegradable coating as this is a way of delivering a drug over a period of time.

Claims 48,58,59,61,72,73,75 and 76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kocur (U.S. Patent No. 6,350,277), and further in view of Camrud et al. (U.S. Patent No. 6,258,117).

Kocur teaches an expandable stent comprising: a plurality of substantially cylindrical ring structures (125, Fig. 1), wherein each ring structure extends around a circumference of the stent (125 extends around a portion of the circumference of the stent) and comprises at least one unit structure (Fig. 1); and at least one connector member joining two of said ring structures (portion connecting each of the 125 together) when said stent is in an unexpanded state, said connector member being partially curved and straight and extending across a space separating adjacent ring structures (Fig. 1, curves if looking from the side, because it is extending around a portion of the circumference), said connector member (portion connecting each of the 125 together) comprising a first end joined to one ring structure (connects 125) and a second end joined to an adjacent ring structure (connects 125), at least one unit structure (125) comprises a plurality of strut members (120) and a plurality of bends, said strut members and bends forming a substantially zig-zag pattern (Fig. 1), said first end is connected to one of said plurality of bends (Fig. 1) of said one ring structure and said second end is connected to another of said plurality of bends of said adjacent ring structure (Fig. 1). Kocur teaches a biodegradable material that degrades thirty to one-hundred eighty days (col.7, ll. 56)

Kocur does not have at least one biodegradable connector member along an entire length thereof between said first end and said second end and is adapted to

biodegrade when said stent is in an expanded state so that said two ring structures become substantially disjoined, however Camrud et al. teaches one biodegradable connector member (90, Fig. 5A, col. 8, ll. 56), along an entire length thereof between said first end and said second end and is adapted to biodegrade when said stent is in an expanded state so that said two ring structures become substantially disjoined. It would have been obvious to one of ordinary skill in the art to use the connecting member of Camrud with the stent assembly of Kocar, because when the connecting member degrades the stent sections are independently movable within the body lumen (col. 9, ll. 2,3, Camrud) thus reducing the amount of pressure on the lumen wall and reducing the potential for trauma (Camrud, abstract).

### ***Response to Arguments***

Applicant's arguments with respect to all the claim have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melissa Ryckman whose telephone number is (571)-272-9969. The examiner can normally be reached on Monday thru Friday 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jackie Ho can be reached on (571)-272-4696. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number:  
10/815,115  
Art Unit: 3773

Page 8

MKR

A handwritten signature in black ink, appearing to read "Jackie Ho", with a long horizontal stroke extending to the right.

(JACKIE) TAN-UYEN HO  
SUPERVISORY PATENT EXAMINER